REMARKS

Applicant gratefully acknowledges the Examiner's acknowledgment of receipt of certified copies of priority documents and of Applicant's claim of foreign priority under 35 U.S.C. § 119.

Claims 1-9 are pending in the application. Claim 1 has been amended by addition of the term "backup" in lines 3 and 11. Support for such amendment may be found in the Specification at page 8, lines 19-24. No new matter has been added.

The Claimed Invention

The claimed invention provides a backup method for applications used in connection with a portable cellular phone 14. In one embodiment, the portable cellular phone 14 includes a main device 1, a memory 2, and a memory transfer device 3. According to the claimed invention, an application storing memory 2a provides a region used to store application information that has been installed in the portable cellular phone 14. A memory transfer device 3 is used to transfer data in the application storing memory 2a to other devices. Thus, an application may be backed up so that backup data may be used to restore the application in the portable cellular phone 14.

Manufacture serial number information 11 and a portable cellular phone number 12 may be stored in the portable cellular phone 14. Application information 13 representing application information may be stored in the application storing memory 2 of the portable cellular phone 14. When data is transferred between the portable cellular phone 14 and a data backup device 15, the data format may include manufacture serial number information 11 and portable cellular phone number 12, in addition to application information 13. Thus, the manufacture's serial number and/or the phone number of the portable cellular phone may be checked so that the packed up application will be restored only when said numbers match corresponding number on the portable cellular phone 14.

Claims 1-6 were rejected under 35 U.S.C § 103(a) as unpatentable over U.S. Patent No. 5,418,837 to Johansson et al. in view of U.S. Patent No. 6,311,241 to Hofmann. Claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over

Johansson et al. in view of Hoffman and further in view of U.S. Patent No. 6,484,026 to Hägebarth. Claim 8 was rejected under 35 U.S.C. § 103(a) as unpatentable over Johansson in view of Hofmann and further in view of U.S. Patent No. 6,324,411 to Genell. Finally, Claim 9 was rejected under 35 U.S.C. § 103(a) as unpatentable over Johansson in view of Hofmann and further in view of U.S. Patent No. 6,728,547 to Frank et al.

Applicant respectfully traverses all such rejections on the basis that *none of the references cited by the Examiner suggests the backing up of applications*. Thus, it would not be obvious to combine the references to arrive at a method for backing up applications of a portable cellular phone, as claimed by the claimed invention.

All of the Examiner's rejections under 35 U.S.C. § 103(a) turn on the incorrect finding, unsupported by citation of any reference, that backing up an application, as claimed by the claimed invention, is equivalent to upgrading software, as taught by the disclosure of Johansson et al. Applicant respectfully traverses that finding as impermissible hindsight and an improper assertion of technical fact in an area of esoteric technology without support by citation of any reference work. *See* M.P.E.P. § 2144.03, citing *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 422-21 (CCPA 1970).

Applicant further traverses on additional grounds as discussed below.

<u>Claims 1-6</u>

The Examiner has rejected independent Claim 1 and dependent Claims 2-6 under 35 U.S.C § 103(a) as unpatentable over Johansson et al. in view of Hofmann. Applicant respectfully traverses on the basis that neither the disclosure of Johansson et al. nor that of Hofmann suggests the backing up of applications, and on additional grounds as discussed below.

<u>Claim 1</u>. The Examiner has rejected Claim 1 on the basis that limitations of Claim 1 are suggested by Johansson et al. and/or Hofmann. Thus, the Examiner incorrectly found the limitation "a step of storing <u>backup</u> application information to be used in said portable cellular phone and identification information used to identify said portable cellular phone in a backup device" (Claim 1, lines 3-5, as amended above) to be suggested by the disclosure of Johansson et al. While the Examiner

interprets the disclosure of Johansson et al. as teaching "'handshaking' with or without encryption" (Office Action at 2, apparently in reference to Johansson et al., column 5, lines 16-17), Claim 1 does not discuss handshaking, which typically refers to establishing a valid connection between two stations and does not typically refer to the checking of identification numbers to confirm one's authorization to restore an application from a backup device as in Claim 1. The addition of the term "backup" at line 3 of Claim 1 clarifies that the application information in question is backup information.

No reference was cited to support the Examiner's incorrect factual conclusion that checking identification information prior to restoring a backed up application is equivalent to "'handshaking' with or without encryption." Applicant therefore respectfully traverses on the basis that the Examiner's comments constitute impermissible hindsight and an improper assertion of technical fact in an area of esoteric technology without support by citation of any reference work. *See* M.P.E.P. § 2144.03, citing *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 422-21 (CCPA 1970).

Furthermore, neither passage cited by the Examiner as suggesting the limitation "identification information used to identify said portable cellular phone" (Claim 1, line 4) actually does so; for example:

> A main memory 15 is provided for storing programs used by the mobile telephone. Mobile telephone 1 also includes a module reader 20 which can read a SIM card, a SUM card 22 according to the present invention, or other removable memory elements. According to one embodiment of the present invention, SUM card 22 includes only a memory 15' for storing the upgrading software.

(Johansson et al., column 4, lines 39-46, cited in the Office Action at 2). Thus, the first passage discusses "storing the upgrading software" (Johansson et al., column 4, lines 45-46) but does not discuss backing up applications. The Examiner's incorrect finding that restoring an application from backup is to be viewed as equivalent to upgrading an application has already been discussed above.

Another portion of the disclosure of Johansson et al. cited by the Examiner discusses "backup memory" (Johansson et al., column 4, lines 52, 54, 56, 63, and 67), which is a form of redundant memory which "may be a separate memory unit . . . or . . . may be a separate backup area provided in the memory." (Johansson et al., column 4, lines 56-58) Thus:

According to one embodiment of the present invention, a backup memory 18 may be provided to reduce the risks of malfunctions or errors due to changing software. The backup memory can be arranged for the entire contents of memory 15 or any part thereof. The backup memory 18 may be a separate memory unit as shown in FIG. 1A, or it may be a separate backup area provided in the memory 15 (not shown). In this area, only verified versions of the different information blocks will be written. If a malfunction or error takes place in the normal memory area, for example, as a result of an incorrect transmission from the SUM card, the information in the backup memory 18 will override the false information. This will be supervised by an error routine provided in the mobile telephone for handling malfunctions.

The backup memory may be of any type. According to a preferred embodiment, the memory is a flash memory or EEPROM or another similar non-volatile memory. The memory may consist of one or more memory elements, for example, IC circuits.

FIG. 1B is a block diagram of a SUM card 22' according to another embodiment of the present invention. In this embodiment, a more "intelligent" SUM card 22' is provided which consists of a memory and a microprocessor and/or an optional battery, which card is in the same physical shape as currently known SIM cards. The microprocessor (CPU 225) can perform the functions of verifying that upgrading is being done for the correct mobile telephone and increasing the reliability of the transfer of data into the mobile telephone from the SUM card.

The first function of verifying that the correct telephone is being upgraded involves a hand-shaking procedure, with or without encryption, between the microprocessor (CPU 10) in the telephone and the CPU 225 on

the SUM card 22'. Only after the hand-shaking procedure is completed and the CPU 225 is satisfied that the correct telephone is being updated, does the procedure for upgrading, described in FIG. 3, begin. The hand-shaking could involve, for example, the checking of the telephone identification number stored in the memory 15 of the telephone against an identification number stored in the memory 15' at the time the SUM card 22' is sent to the user. Other embodiments of the hand-shaking procedure are believed to be within the skill of the ordinary artisan in possession of this disclosure.

(Johnsson et al., column 4, line 51 – column 5, line 30, cited in the Office Action at 2) It is therefore apparent that the disclosure of Johansson et al. does not discuss a "backup device" (Claim 1, line 5) into which an application may be backed up, as claimed by Claim 1.

The Examiner also incorrectly found the limitation "a step of transferring, when said application information is backed up, said application information with said identification information being added from said backup device to said portable cellular phone" (Claim 1, lines 6-8) to be anticipated by the following passage from the disclosure of Johansson et al.:

FIG. 1B is a block diagram of a SUM card 22' according to another embodiment of the present invention. In this embodiment, a more "intelligent" SUM card 22' is provided which consists of a memory and a microprocessor and/or an optional battery, which card is in the same physical shape as currently known SIM cards. The microprocessor (CPU 225) can perform the functions of verifying that upgrading is being done for the correct mobile telephone and increasing the reliability of the transfer of data into the mobile telephone from the SUM card.

The first function of verifying that the correct telephone is being upgraded involves a hand-shaking procedure, with or without encryption, between the microprocessor (CPU 10) in the telephone and the CPU 225 on the SUM card 22'. Only after the hand-shaking procedure is completed and the CPU 225 is satisfied that the correct telephone is being updated, does the procedure for upgrading, described in FIG. 3, begin. The hand-shaking could

> involve, for example, the checking of the telephone identification number
> stored in the memory 15 of the telephone against an identification number
> stored in the memory 15' at the time the SUM card 22' is sent to the user.
> Other embodiments of the hand-shaking procedure are believed to be within
> the skill of the ordinary artisan in possession of this disclosure.

(Johansson et al., column 4, lines 4-30) Just as the cited passage from Johansson et al. does not discuss transferring a backed up application, Claim 1 does not discuss handshaking, SUM or SIM cards, or upgrading. (Johansson, column 5, lines 6-10, 11, and 16)

The Examiner incorrectly found the limitation "a step of said portable cellular phone comparing the transferred identification information with identification information of said portable cellular phone" (Claim 1, lines 9-10) to be anticipated by the following passage from the disclosure of Johansson et al.:

> Only after the hand-shaking procedure is completed and the CPU 225 is
> satisfied that the correct telephone is being updated, does the procedure for
> upgrading, described in FIG. 3, begin. The hand-shaking could involve, for
> example, the checking of the telephone identification number stored in the
> memory 15 of the telephone against an identification number stored in the
> memory 15' at the time the SUM card 22' is sent to the user.

(Johansson et al., column 5, lines 19-27, of which lines 22-27 are cited in the Office Action at 2) Even though the cited portion of the disclosure of Johansson et al. discusses the checking of an identification number prior to providing information to a telephone, Johansson et al. do so in the context of upgrading software rather than in the context of restoring an application from backup data as in Claim 1.

The Examiner further incorrectly found the limitation "a step of copying said application information only when both of said identification information match each other" (Claim 1, lines 11-12) to be anticipated by the following passage from the disclosure of Johansson et al.:

> The first function of verifying that the correct telephone is being
> upgraded involves a hand-shaking procedure, with or without encryption,
> between the microprocessor (CPU 10) in the telephone and the CPU 225 on

the SUM card 22'. Only after the hand-shaking procedure is completed and the

CPU 225 is satisfied that the correct telephone is being updated, does the

procedure for upgrading, described in FIG. 3, begin. The hand-shaking could

involve, for example, the checking of the telephone identification number

stored in the memory 15 of the telephone against an identification number

stored in the memory 15' at the time the SUM card 22' is sent to the user.

Other embodiments of the hand-shaking procedure are believed to be within

the skill of the ordinary artisan in possession of this disclosure.

(Johansson et al., column 5, lines 15-30, cited in the Office Action at 3) Even though

the cited portion of the disclosure of Johansson et al. discusses a "first function of

verifying that the correct telephone is being upgraded" (Johansson et al., column 5,

lines 15-16), Johansson et al. do not suggest a method of restoring an application from

backup data, which is the essence of Claim 1 and the other claims of the claimed

invention.

Recognizing that Johansson et al. do not suggest Claim 1, the Examiner has

relied upon the disclosure of Hofmann to supply missing features. The Examiner

incorrectly found:

Hofmann provides evidence of a plug-in device EV which has program data

(i.e., reads on application information) stored therein (in PS Program

memory). Program data is to be transferred to the electronic unit via an

existing input/output interface EAS, e.g., a SIM input/output interface of a

mobile radio terminal.

(Office Action at 3, citing Hofmann, Figure 2, column 3, lines 38-50). The cited

portions of Hofmann, however, do not suggest Claim 1. Figure 2 of Hofmann, relied

on by the Examiner, does not suggest a method for backing up application data but
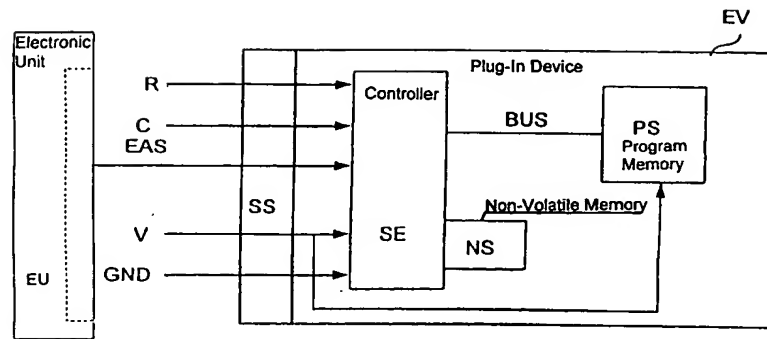
instead provides:

FIG 2

(Hofmann, Figure 2, cited in the Office Action at 3) Neither does the discussion of Figure 2 in the disclosure of Hofmann, also relied on by the Examiner, suggest backup methods:

> FIG. 2 shows the plug-in device EV corresponding to the method according to the invention that has a program memory PS, on which the program data to be transferred are stored. The memory PS can preferably be configured as a flash module or as a ROM. A flash module has the advantage that the card can be reused in addition, the plug-in device EV has a controller SE for controlling the transfer of programs to the electronic unit EU and for adapting the transfer to an existing input/output interface EAS, for example a SIM input/output interface of a mobile radio terminal. The program memory PS may in this case be connected via a bus BUS to the controller SE or may be embodied as part of the controller (monolithically).

(Hofmann, column 3, lines 38-50, cited in the Office Action at 3) While Hofmann teaches transferring programs to a device, it does not do so in the context of backing up applications from a portable cellular telephone, which is the essence of Claim 1

and the other claims of the claimed invention.

For the foregoing reasons, Claim 1 is not suggested by Johansson et al. or Hofmann and should be allowed.

Claim 2. Because Claim 2 depends from Claim 1, the foregoing discussion of the rejection of Claim 1 is hereby incorporated by reference. The Examiner has rejected Claim 2 on the basis that the limitation "wherein said identification information is a manufacture serial number and/or a telephone number of said portable cellular phone" (Claim 2, lines 2-3) is suggested by the following passage from Johansson et al.:

> The hand-shaking could involve, for example, the checking of the telephone identification number stored in the memory 15 of the telephone against an identification number stored in the memory 15' at the time the SUM card 22' is sent to the user. Other embodiments of the hand-shaking procedure are believed to be within the skill of the ordinary artisan in possession of this disclosure.

(Johansson et al., lines 22-30, cited in the Office Action at 3) While the disclosure of Johansson et al. teaches the checking of a telephone identification number, it does not do so in the context of backing up applications from a portable cellular telephone, as in Claim 2 of the claimed invention. Thus, Claim 2 is not suggested by Johansson et al., either standing alone or in combination with other references, and should therefore be allowed.

Claims 3, 4, and 5. Because Claim 3, 4, and 5 depend from Claim 1, the foregoing discussion of the rejection of Claim 1 is hereby incorporated by reference. Claims 3, 4, and 5 claim the following limitations addressed by the Examiner:

> [W]herein said portable cellular phone performs processing of verifying whether or not said applications transferred from said backup device run normally and does not copy said transferred application if said application does not run properly.

(Claim 3, lines 2-5);

> [W]herein said portable cellular phone stores said application information having undergone the verification processing in said portable cellular phone in an executable format.

(Claim 4, lines 2-4); and

> [W]herein said portable cellular phone stores said application information having undergone the verification processing in said portable cellular phone in an executable format.

(Claim 5, lines 2-4)

The Examiner has rejected each of those limitations on the basis of the following passage from Johansson et al.:

> According to one embodiment of the present invention, a backup memory 18 may be provided to reduce the risks of malfunctions or errors due to changing software. The backup memory can be arranged for the entire contents of memory 15 or any part thereof. The backup memory 18 may be a separate memory unit as shown in FIG. 1A, or it may be a separate backup area provided in the memory 15 (not shown). In this area, only verified versions of the different information blocks will be written. If a malfunction or error takes place in the normal memory area, for example, as a result of an incorrect transmission from the SUM card, the information in the backup memory 18 will override the false information. This will be supervised by an error routine provided in the mobile telephone for handling malfunctions.

(Johansson et al., column 4, lines 51-66, cited in the Office Action at 4)

With regard to Claim 3, the Examiner is incorrect in finding that the "backup device" of Claim 3 is suggested by the "backup memory" taught by Johansson et al. The disclosure of Johansson et al. discusses "backup memory" (Johansson et al., column 4, lines 52, 54, 56, 63, and 67) as a form of redundant memory which "may be a separate memory unit . . . or . . . may be a separate backup area provided in the memory." (Johansson et al., column 4, lines 56-58) The "backup device" of Claim 3 does not serve as redundant memory but instead serves as a repository of backup data from which an application may be restored to a portable cellular telephone. As a result, Claim 3 is not suggested by Johansson et al., either standing alone or in

combination with other references, and should be allowed.

With regard to Claim 4, the Examiner is incorrect in finding that features of Claim 4 are suggested by the use of "backup memory" taught by Johansson et al. Claim 4 does not claim the use of redundant memory, as taught by Johansson et al., but instead claims the transfer of a backed up application to a portable cellular telephone "in an executable format" following verification. (Claim 4, line 4) As a result, Claim 4 is not suggested by Johansson et al., either standing alone or in combination with other references, and should be allowed.

With regard to Claim 5, the Examiner is incorrect in finding that features of Claim 5 are suggested by the use of "backup memory" taught by Johansson et al. Claim 5 does not claim the use of redundant memory, as taught by Johansson et al., but instead claims the storing of a backed up application in a portable cellular telephone "in an executable format" once the backed up application has been transferred to the portable cellular telephone from the backup device. (Claim 5, line 4) As a result, Claim 5 is not suggested by Johansson et al., either standing alone or in combination with other references, and should be allowed.

Claim 6. Because Claim 6 depends from Claim 1, the foregoing discussion of the rejection of Claim 1 is hereby incorporated by reference. The Examiner has rejected Claim 6 on the basis that the limitation "wherein said portable cellular phone terminates processing when said identification information transferred from said backup device does not match the identification information of said portable cellular phone" (Claim 6, lines 2-4) is suggested by the following passage from Johansson et al.:

> Only after the hand-shaking procedure is completed and the CPU 225 is satisfied that the correct telephone is being updated, does the procedure for upgrading, described in FIG. 3, begin.

(Johansson et al., column 5, lines 19-22, cited in the Office Action at 4) While the disclosure of Johansson et al. teaches deferring an update procedure until confirming "that the correct telephone is being updated," it does not suggest terminating processing if "identification information" does not match. Thus, where Johansson et al. teaches waiting for verification prior to updating software, Claim 6 teaches

terminating the restoration of a backed up application if identification information cannot be verified. In addition, the disclosure of Johansson et al. teaches methods relating to software upgrades, and does not suggest the backing up of applications as in Claim 6 of the claimed invention. Thus, Claim 6 is not suggested by Johansson et al., either standing alone or in combination with other references, and should therefore be allowed.

<u>Claim 7</u>

Because Claim 7 depends from Claim 1, the foregoing discussion of the rejection of Claim 1 is hereby incorporated by reference. Recognizing that neither Johansson et al. nor Hofmann suggest Claim 7, the Examiner has relied upon the disclosure of Hägebarth to supply missing features. The Examiner has thus rejected Claim 7 on the basis that the limitation "wherein said portable cellular phone terminates processing when said identification information transferred from said backup device does not match the identification information of said portable cellular phone" (Claim 7, lines 2-74) is suggested by the following passages from the disclosure of Hägebarth:

> According to an advantageous further development of the present invention, a mobile telephone number is assigned to the SIM card upon clearance. In the future the customer can then be reached at this telephone number within the mobile telephone network.

(Hägebarth, column 4, lines 48-52, cited in the Office Action at 5); and

> Alternatively, it is proposed that the card number of the SIM card be automatically transmitted via the connection to the communications network. In this embodiment, the potential customer can use his mobile telephone with the still uncleared SIM card to set up a connection to the communications network. Telephoning within a mobile telephone network without a SIM card, or with a still uncleared SIM card, is possible in principle (e.g., the emergency number 112 [Germany's equivalent of 911] can be dialed from a mobile telephone even without a SIM card). If a call is made within the mobile telephone network with a non-cleared SIM card, the mobile telephone network can cause the calling mobile telephone to transmit the card number stored on

> the SIM card or the mobile telephone network itself can access the stored card
> number. Of course, this presumes that the card number is stored on the
> memory chip of the SIM card and that the content of the memory chip can be
> accessed from outside via the mobile telephone network. In this embodiment,
> manual entry of the card number may be eliminated.

(Hägebarth, column 4, lines 33-52, cited in the Office Action at 5) While the
discussion in the disclosure of Hägebarth describes the termination of unauthorized
mobile phone use, Hägebarth does not suggest terminating the process of restorating
an application from a backup device when identification numbers do not match. As a
result, Claim 7 is not suggested by Hägebarth, either standing alone or in combination
with other references, and should therefore be allowed.

<div align="center">Claim 8</div>

Because Claim 8 depends from Claim 1, the foregoing discussion of the
rejection of Claim 1 is hereby incorporated by reference. Recognizing that neither
Johansson et al. nor Hofmann suggest Claim 8, the Examiner has relied upon the
disclosure of Genell to supply missing features. The Examiner has thus rejected
Claim 8 on the basis that the limitation "wherein, when data is transmitted and/or
received between said portable cellular phone and said backup device, information
indicating a mode is added to said data" (Claim 8, lines 2-4) is suggested by the
following passage from the disclosure of Genell:

> The software loading process can be accomplished while the device is in
> operation, i.e. handling voice or data traffic. This occurs by writing the new
> software into to bpm 28 which is isolated from device operations. The action
> takes place in the background thereby permitting the device to be free from
> interruption during the load. Processor 30 sets up and monitors the data
> transfer to bpm 28 and, when the device becomes idle, directs the transfer of
> data from bpm 28 to rtm 27. The process of copying the data to rtm 27 takes
> place within an update time interval 32 in a matter of milliseconds. Copying
> from bpm 28 to rtm 27 can be initiated by signaling from MSC 22 in order to
> make sure that the act does not interfere with ongoing traffic. Time critical
> tasks relating to handling traffic can be given higher priority by the MSC than

those relating to software loading. Thus the MSC alerts the processor that the device is engaged and to delay copying the data to ensure traffic is maintained. (Genell, column 3, line 54 – column 4, line 2) Thus, the cited portion of the disclosure of Genell does not suggest "data . . . transmitted and/or received between said portable cellular phone and said backup device" or "information indicating a mode [being] added to said data," as in Claim 8. (Claim 8, lines 2-3, 3-4) As a result, Claim 8 is not suggested by Genell, either standing alone or in combination with other references, and should therefore be allowed.

<u>Claim 9</u>

Because Claim 9 depends from Claim 1, the foregoing discussion of the rejection of Claim 1 is hereby incorporated by reference. Recognizing that neither the disclosure of Johansson et al. nor that of Hofmann suggest Claim 9, the Examiner has relied upon the disclosure of Frank et al. to supply missing features. The Examiner has thus rejected Claim 9 on the basis that the limitation "wherein said application is a Java application" (Claim 8, line 2) is suggested by the following passage from the disclosure of Frank et al.:

> Java Card API is a java standard which has been developed for smart cards (for instance GSM's SIM is a smart card). Java Card API makes it possible to implement a java interpreter on the SIM, which i.a. results in that the operator has possibility to either download an own-developed java application on the card, before it is handed over to the customer, or load down an application via, for instance, SMS. Together with SIM Application Toolkit, there will be possibilities to develop very advanced functions and applications.

(Frank et al., column 2, lines 3-12) Thus, while the disclosure of Frank et al. discusses mobile phone applications which may be written in Java, it does not suggest the restoration of a Java application from a backup device as claimed in Claim 9. As a result, Claim 9 is not suggested by Frank et al., either standing alone or in combination with other references, and should therefore be allowed.

Conclusion

In view of the foregoing, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed.

Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson).

Respectfully submitted,

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